PETER DILLERY
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EMPLOYMENT

University of Bonn — **Bonn, Germany**
Research Assistant — **October 2025-Present**
University of Maryland, College Park — **College Park, MD**
Brin Postdoctoral Fellow — **2022-2025**

EDUCATION

University of Michigan — **Ann Arbor, MI**
PhD in Mathematics — **August 2022**

University of Virginia — **Charlottesville, VA**
B.A. in Mathematics, GPA 4.0 — **June 2017**

PAPERS AND PREPRINTS

1. *A Tannakian description of the local Kaletha gerbe* (joint with Alexander Bertoloni Meli). (preprint to be posted shortly)
   Preprint available upon request

2. *Vector bundles on cones over a Fargues-Fontaine curve* (with Kiran Kedlaya). (preprint)
   https://kskedlaya.org/papers/affine-cone.pdf

3. *Non-basic rigid packets for discrete L-parameters* (with David Schwein). (preprint)
   https://arxiv.org/pdf/2408.13908

4. *Isocrystals and limits of rigid local Langlands correspondences.* (preprint)
   Accepted at **Algebra and Number Theory**,
   https://arxiv.org/abs/2312.09195

5. *A stacky generalized Springer correspondence and rigid enhancements of L-parameters* (with David Schwein). (preprint)
   Under revision at **Journal of the Institute of Mathematics of Jussieu**,
   https://arxiv.org/abs/2308.11752

6. *Rigid inner forms over global function fields.*
   Journal of the Institute of Mathematics of Jussieu, 2025.
   https://arxiv.org/abs/2110.10820

7. *Rigid inner forms over local function fields.*
   Advances in Mathematics, 2023.
   https://arxiv.org/abs/2008.04472

8. *The canonical join complex for biclosed sets.* (joint with with A. Clifton and A. Garver)[Research done as undergraduate].
   Algebra Universalis, 2018.

9. *Minimal-length maximal Green sequences and triangulations of polygons.* (joint with with E. Cormier, K. Serhiyenko, J. Resh, and J. Whelan)[Research done as undergraduate].
   Journal of Algebraic Combinatorics, 2016.

SERVICE AND OUTREACH

- University of Maryland
  - Co-organized number theory and representation theory seminar (Fall 2023-May 2025)
  - Co-organizer for Brin Center workshop "Geometric Approaches to the Local Langlands Program" ($40,00 budget, March 2025)
  - DC Math Circle (Fall 2024–Present): Taught mathematical enrichment classes to middle-schoolers in the DC area
  - Co-organized RIT seminar on "The stack of Langlands parameters (Spring 2024)
  - Provided lessons for DEI STEM repository at Indiana University Social Roles Laboratory (https://socialroles.lab.indiana.edu/index.html) (Spring 2024)
  - Reviewer for MathSciNet (Fall 2023-present)
  - Co-organized Lie groups and representation theory seminar (Fall 2022-Spring 2023)
  - Organized UMD number theory lunch (Spring 2023-Spring 2024)
- University of Michigan
  - Co-supervised project for Michigan REU (Summer 2022)
  - Michigan Math Corps (Fall 2020-Spring 2021): Math outreach/mentoring program for middle-schoolers in Ypsilanti
  - Michigan Math Circle (Fall 2019): Taught mathematical enrichment classes to Ann Arbor middle-schoolers
  - Co-organizer for student arithmetic geometry learning seminar (Fall 2019)
  - Organizer for graduate student and postdoc number theory happy hour (Fall 2020-Spring 2021)

Mentoring

- Nir Elber, *Representations of Galois gerbes*, Summer REU at UofM, Summer 2022

Awards

- Rackham Pre-doctoral Fellowship (Fall 2021-Spring 2022)

Teaching

University of Maryland, College Park   **College Park, MD**
Instructor of record   Fall 2022- May 2025
- Math 403, Abstract Algebra (Spring 2025)
- Math 405, Abstract Linear Algebra (Fall 2024)
- Math 406, Number Theory (Fall 2022, Spring 2023, Spring 2024)
- Math 120, Business Calculus I [220-person lecture] (Fall 2023)

University of Michigan   **Ann Arbor, Mi**
Graduate Student Instructor (GSI)—instructor of record   Fall 2017- Spring 2022
- Math 116, Calculus II [Primary instructor] (Fall 2019, Fall 2020)
- Math 115, Calculus I [Primary instructor] (Fall 2017-Spring 2019)

Selected invited talks given (or to be given) in seminars and conferences

- Algebraic Geometry and Number Theory Seminar. Chalmers University, Gothenberg, Sweden. Spring 2026 (Date TBA)
- University of Sheffield Number Theory Seminar. University of Sheffield, Sheffield, UK. December, 2025.
- Canadian Rockies Representation Theory Seminar. University of Calgary. April, 2025.
- Texas Christian University Mathematics Colloquium. April, 2025.
- Séminaire d'arithmétique á l'UMPA de Lyon (ENS Lyon). January, 2025.
- Séminaire Groupes Réductifs et Formes Automorphes, Institut de Mathematiques de Jussieu - Paris Rive Gauche. January, 2025.
- Oberseminar Arithmetische Geometrie und Darstellungstheorie - Max Planck Institute of Mathematics, Bonn, Germany. January, 2025.
- Mini Workshop on Arithmetic and Representations. Yau Mathematical Sciences Center (Tsinghua University), Beijing, China. December, 2024.
- Ramanujan-Serre (Number Theory) Seminar. University of Virginia. November, 2024.
- MIT Lie Groups Seminar. October, 2024.
- Boston College Number Theory/Representation Theory Seminar. October, 2024
- Duke University Number Theory Seminar. October, 2024
- American University Mathematics and Statistics Colloquium. September, 2024
- University of Maryland Number Theory/Representation Theory Seminar, September, 2024
- The Graduate Center (CUNY) Arithmetic Geometry Seminar. March, 2024.
- University of Arizona Number Theory Seminar. April, 2024.
- Johns Hopkins Number Theory Seminar. December, 2023.
- University of Maryland Number Theory/Representation Theory Seminar. November, 2023.
- Johns Hopkins Number Theory Seminar. October, 2022.
- University of Maryland Lie Groups and Representation Theory Seminar. September, 2022.
- University of Copenhagen Number Theory Seminar (2 talks). June, 2022.
- MIT Lie Groups Seminar. May, 2022.
- Ramanujan-Serre (Number Theory) Seminar. University of Virginia. March, 2022.
- Junior Number Theory Days. Johns Hopkins. December, 2021.
- Automorphic Project and Research Seminar. October, 2021.
- University of Michigan Number Theory RTG Seminar. September, 2021.
- University of Michigan Number Theory RTG Seminar. August, 2020.

Languages

English–fluent, Spanish–Fluent reading and advanced speaking, French–fluent reading and intermediate speaking